

REMARKS AND ARGUMENTS

I. INTRODUCTORY REMARKS

The Office Action dated January 24, 2008 has been received and its contents carefully considered. Claims 1-9, 15-18 and 20 are currently pending in the application. The Applicant thanks the Examiner for the careful consideration of this application. Based on the following remarks, the Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn. Reconsideration is respectfully requested.

II. CLAIM REJECTIONS UNDER 35 U.S.C. § 103

On page 2 of the Office Action, claims 1-9, 15-18 and 20 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,610,638 to Courtney in view of U.S. Patent No. 5,742,305 to Hackleman. The Applicant respectfully traverses this rejection. Reconsideration and withdrawal of the rejections are respectfully requested.

A. CLAIM 1

As set forth in the MPEP, a prior art reference (or references when combined) must teach or suggest all the claim limitations (See M.P.E.P. § 2143). In this case, the Office Action fails to provide any suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. As the Supreme Court noted in *KSR*, "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with

some rational underpinning to support the legal conclusion of obviousness." *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 U.S.P.Q.2d 1385 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 778 USPQ2d 1329, 1336 (Fed. Cir. 2006)).

As stated in the Applicant's response of January 11, 2008, the Applicant respectfully maintains that the combination of Courtney with Hackleman is improper. Courtney and Hackleman are structurally different and improve different problems in printing. No reasonable combination of Courtney and Hackleman discloses "a printhead assembly comprising...a *scanning* carriage supporting the printhead assembly to scan the printhead assembly across a sheet for printing a swath of ink thereon; a nozzle member coupled to the ink supply and having *plural nozzles*, wherein a predefined number of nozzles are *offset*...(emphasis added)" as recited by claim 1.

Hackleman acknowledges that there "is a need for a data transfer method capable of sustaining nozzle speed...across the entire PWA printhead at desired resolutions" (See Hackleman col. 1, lines 66-67 and col.2, lines 52-55). Thus, the aim of Hackleman is to create a more "effective architecture capable of sustaining *nozzle speed* with an easier to achieve *data throughput* (emphasis added)" (See Hackleman col. 1, lines 44-46). Ultimately, Hackleman discloses a stationary *page-wide-array* ink jet such that the printhead "extends across an entire pagewidth, is *fixed* in position and includes more than 5000 nozzles"(See Hackleman col. 1, lines 19-20).

Courtney acknowledges that there is a need "to simply and inexpensively control the dot size to maintain a high quality printed image" (See Courtney col.2, lines 20-23). The goal of Courtney is to control the ink dot size during the formation of an image. Courtney discloses a moving printhead assembly that senses an internal temperature of the printer, determines the density of the stored image to be printed, and selects a print mode of either a single pass or double pass checkerboard printing mode, and *scans across a page* (See Courtney col. 2, lines 35-44).

The instant application strives to achieve "a more efficient system of producing high quality printouts" (See paragraph [0006] of the published application). As stated in paragraph [0007], "the present invention is embodied in a system and method for using *lower data rates* for high nozzles per inch printheads (emphasis added)."

On page 4 of the Office Action, the Examiner concludes that the motivation for combining Courtney with Hackleman is "to reduce the cross-talk problem between two adjacent nozzles and to allow a column of dots to print within a tolerable error criteria in order to gain the printing quality as taught by Hackleman." As discussed above, neither Hackleman, nor Courtney, nor for that matter the instant application disclose having problems with cross-talk amongst the nozzles. Both Hackleman and Courtney strive to solve different problems in printing—sustaining nozzle speed with better data throughput and dot size control. Even if cross-talk was a stated problem of Hackleman, Courtney or the present application, the Examiner has not shown that offsetting the nozzles would actually reduce cross-talk.

Although the Office Action cites Hackleman for the proposition that it would be obvious to "modify Courtney's printhead assembly to offset the plurality of nozzles and to align the plurality of nozzles horizontally with dot column correction," it does not address how either one of Hackleman or Courtney teach at least "a printhead assembly comprising...a *scanning* carriage supporting the printhead assembly to scan the printhead assembly across a sheet for printing a swath of ink thereon; a nozzle member coupled to the ink supply and having *plural nozzles*, wherein a predefined number of nozzles are *offset*...(emphasis added)" as recited by claim 1. The basis for the combination is purely speculative and "rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 U.S.P.Q.2d 1385 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 778 USPQ2d 1329, 1336 (Fed. Cir. 2006)). Accordingly, it is respectfully submitted that the Examiner has resorted to hindsight reconstruction in view of Applicant's disclosure.

Even if the disclosure of Courtney were combined with that of Hackleman in the manner set forth by Office Action, the combination still would not perform the step of "a printhead assembly comprising...a *scanning* carriage supporting the printhead assembly to scan the printhead assembly across a sheet for printing a swath of ink thereon; a nozzle member coupled to the ink supply and having *plural nozzles*, wherein a predefined number of nozzles are *offset*...(emphasis added)" as recited by claim 1. Simply, Courtney would not function with offset nozzles as intended. Alignment in Courtney is very important and necessary for computing the image density of the print data. The nozzles of Courtney are aligned horizontally so that an entire

line is able to be printed across the page. Before printing, the image density of the print data must be determined (See col. 5, lines 56-62). Offsetting the nozzles would disrupt the method of calculating the image density of print data by altering the raster by raster filter analysis and by altering column alignment (See Figure 4A; col. 5, lines 56-62 and col. 6, lines 30-35). The calculation of the image density could not be performed with offset nozzles consequently defeating the function of the Courtney invention.

Therefore, the Office Action conveys rejections on obviousness which are "sustained by mere conclusory statements" instead of "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 U.S.P.Q.2d 1385 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 778 USPQ2d 1329, 1336 (Fed. Cir. 2006)). Reconsideration and withdrawal of the rejection is respectfully requested.

B. CLAIMS 2-9, 15-18 AND 20

Claims 2-9, 15-18 and 20 depend from claim 1 and are submitted as being allowable for at least the same reasons. Reconsideration and withdrawal of the rejection is respectfully requested.

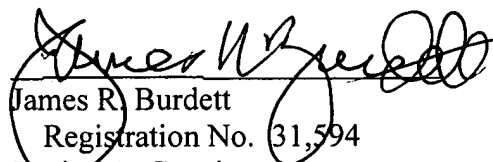
CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant, therefore, respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

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